

**ABSTRACT OF THE DISCLOSURE**

An apparatus and method for removing photoresist from a substrate, which includes treating the photoresist with a first reactant to cause swelling, cracking or delamination of the photoresist, treating the photoresist with a second reactant to chemically alter the photoresist, and subsequently removing the chemically altered photoresist with a third reactant. In one example, the first reactant is supercritical carbon dioxide (SCCO<sub>2</sub>), the second reactant is ozone vapor, and the third reactant is deionized water.